

SEQUENCE LISTING

<110> FISHEL, Richard A.
GRADIA, Scott
ACHARYA, Samir

<120> COMPOSITIONS, KITS, AND METHODS FOR EFFECTING ADENINE
NUCLEOTIDE MODULATION OF DNA MISMATCH RECOGNITION
PROTEINS

<130> 9855-6U3

<140> Not Yet Assigned

<141> 2001-08-22

<150> US 60/093,935

<151> 1998-07-23

<150> US 60/066,977

<151> 1997-11-28

<150> US 60/057,136

<151> 1997-08-28

<150> US 09/143,571

<151> 1998-08-28

<160> 36

<170> PatentIn Ver. 2.1

<210> 1

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA Substrate

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39

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Substrate

<400> 2

cctggtacct cgagcgatca agcttggtgg aattcgccg

39

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Substrate

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39

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<211> 81

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Substrate

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<210> 5

<211> 81

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Substrate

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ctaagcttca gtcacagctt t 81

<210> 6

<211> 81

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Substrate

<400> 6

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ctaagcttca gctccagctt t 81

<210> 7

<211> 26

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: p53 Primers

<400> 7

gtgtttcatt agttccccac cttgac 26

<210> 8

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: p53 Primers

<400> 8

atgggaggct gccagtccta accc 24

<210> 9

<211> 25

<212> DNA

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<223> Description of Artificial Sequence: p53 Primers

<400> 9

gtgggaggga caaaagttag aggcc 25

<210> 10

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: p53 Primers

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<210> 11

<211> 19

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Mouse DXMIT6
Primers

<400> 11

accattcaaa ttggcaagg

19

<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Mouse DXMIT6
Primers

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20

<210> 13

<211> 45

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: MSH
Subcloning Linkers

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<223> Description of Artificial Sequence: MSH
Subcloning Linkers

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<210> 15
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<223> Description of Artificial Sequence: hMSH2
Truncation Primers

<400> 15
gcggatccca tgg

13

<210> 16
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<223> Description of Artificial Sequence: hMSH2
Truncation Primers

<400> 16
ggaggatccc ta

12

<210> 17
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Truncation Primers

<400> 17
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<223> Description of Artificial Sequence: hMSH2
Truncation Primers

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<210> 19
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<223> Description of Artificial Sequence: hMSH2 Primers

<400> 19
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<210> 20
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<223> Description of Artificial Sequence: hMSH2 Primers

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<210> 21
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<223> Description of Artificial Sequence: DNA Linkers

<400> 21

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<210> 22

<211> 42

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: DNA Linkers

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42

<210> 23

<211> 12

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: hMSH3 Primer

<400> 23

gcggtgaccg gt

12

<210> 24

<211> 21

<212> PRT

<213> Homo sapiens

<220>

<223> region I of hMSH2

<400> 24

Leu Phe Asp Arg Gly Asp Phe Tyr Thr Ala His Gly Glu Asp Ala Leu
1 5 10 15

Leu Ala Ala Arg Glu
20

<210> 25

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<223> region II of hMSH2

<400> 25

Thr	Pro	Gln	Gly	Gln	Arg	Leu	Val	Asn	Gln	Trp	Ile	Lys	Gln	Pro	Leu
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Met	Asp	Lys	Asn	Arg	Ile	Glu	Glu	Arg	Leu	Asn	Leu	Val	Glu	Ala	Phe
			20					25					30		

Val

<210> 26

<211> 28

<212> PRT

<213> Homo sapiens

<220>

<223> region III of hMSH2

<400> 26

Leu	Lys	Ala	Ser	Arg	His	Ala	Cys	Val	Glu	Val	Gln	Asp	Glu	Ile	Ala
1				5					10					15	

Phe	Ile	Pro	Asn	Asp	Val	Tyr	Phe	Glu	Lys	Asp	Lys
			20				25				

<210> 27

<211> 104

<212> PRT

<213> Homo sapiens

<220>

<223> region IV of hMSH2

<400> 27

Ile	Ile	Thr	Gly	Pro	Asn	Met	Gly	Gly	Lys	Ser	Thr	Tyr	Ile	Arg	Gln
1				5					10					15	

Thr	Gly	Val	Ile	Val	Leu	Met	Ala	Gln	Ile	Gly	Cys	Phe	Val	Pro	Cys
			20					25					30		

Glu Ser Ala Glu Val Ser Ile Val Asp Cys Ile Leu Ala Arg Val Gly
 35 40 45
 Ala Gly Asp Ser Gln Leu Lys Gly Val Ser Thr Phe Met Ala Glu Met
 50 55 60
 Leu Glu Thr Ala Ser Ile Leu Arg Ser Ala Thr Lys Asp Ser Leu Ile
 65 70 75 80
 Ile Ile Asp Glu Leu Gly Arg Gly Thr Ser Thr Tyr Asp Gly Phe Gly
 85 90 95
 Leu Ala Trp Ala Ile Ser Glu Tyr
 100

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 <211> 41
 <212> PRT
 <213> Homo sapiens

<220>
 <223> region V of hMSH2

<400> 28
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 1 5 10 15
 Gly Ile His Val Ala Glu Leu Ala Asn Phe Pro Lys His Val Ile Glu
 20 25 30
 Cys Ala Lys Gln Lys Ala Leu Glu Leu
 35 40

<210> 29
 <211> 834
 <212> PRT
 <213> Homo sapiens

<400> 29
 Met Ala Ser Leu Gly Ala Asn Pro Arg Arg Thr Pro Gln Gly Pro Arg
 1 5 10 15
 Pro Gly Ala Ala Ser Ser Gly Phe Pro Ser Pro Ala Pro Val Pro Gly
 20 25 30
 Pro Arg Glu Ala Glu Glu Glu Glu Val Glu Glu Glu Glu Glu Leu Ala

290

295

300

Met Leu His Arg Leu Leu Gly His Ile Lys Asn Val Pro Leu Ile Leu
305 310 315 320

Lys Arg Met Lys Leu Ser His Thr Lys Val Ser Asp Trp Gln Val Leu
325 330 335

Tyr Lys Thr Val Tyr Ser Ala Leu Gly Leu Arg Asp Ala Cys Arg Ser
340 345 350

Leu Pro Gln Ser Ile Gln Leu Phe Arg Asp Ile Ala Gln Glu Phe Ser
355 360 365

Asp Asp Leu His His Ile Ala Ser Leu Ile Gly Lys Val Val Asp Phe
370 375 380

Glu Gly Ser Leu Ala Glu Asn Arg Phe Thr Val Leu Pro Asn Ile Asp
385 390 395 400

Pro Glu Ile Asp Glu Lys Lys Arg Arg Leu Met Gly Leu Pro Ser Phe
405 410 415

Leu Thr Glu Val Ala Arg Lys Glu Leu Glu Asn Leu Asp Ser Arg Ile
420 425 430

Pro Ser Cys Ser Val Ile Tyr Ile Pro Leu Ile Gly Phe Leu Leu Ser
435 440 445

Ile Pro Arg Leu Pro Ser Met Val Glu Ala Ser Asp Phe Glu Ile Asn
450 455 460

Gly Leu Asp Phe Met Phe Leu Ser Glu Glu Lys Leu His Tyr Arg Ser
465 470 475 480

Ala Arg Thr Lys Glu Leu Asp Ala Leu Leu Gly Asp Leu His Cys Glu
485 490 495

Ile Arg Asp Gln Glu Thr Leu Leu Met Tyr Gln Leu Gln Cys Gln Val
500 505 510

Leu Ala Arg Ala Ala Val Leu Thr Arg Val Leu Asp Leu Ala Ser Arg
515 520 525

Leu Asp Val Leu Leu Ala Leu Ala Ser Ala Ala Arg Asp Tyr Gly Tyr
530 535 540

Ser Arg Pro Arg Tyr Ser Pro Gln Val Leu Gly Val Arg Ile Gln Asn

545		550		555		560
Gly Arg His Pro Leu Met Glu Leu Cys Ala Arg Thr Phe Val Pro Asn						
		565		570		575
Ser Thr Glu Cys Gly Gly Asp Lys Gly Arg Val Lys Val Ile Thr Gly						
		580		585		590
Pro Asn Ser Ser Gly Lys Ser Ile Tyr Leu Lys Gln Val Gly Leu Ile						
		595		600		605
Thr Phe Met Ala Leu Val Gly Ser Phe Val Pro Ala Glu Glu Ala Glu						
		610		615		620
Ile Gly Ala Val Asp Ala Ile Phe Thr Arg Ile His Ser Cys Glu Ser						
		625		630		635
				635		640
Ile Ser Leu Gly Leu Ser Thr Phe Met Ile Asp Leu Asn Gln Val Ala						
				645		650
						655
Lys Ala Val Asn Asn Ala Thr Ala Gln Ser Leu Val Leu Ile Asp Glu						
				660		665
						670
Phe Gly Lys Gly Thr Asn Thr Val Asp Gly Leu Ala Leu Leu Ala Ala						
				675		680
						685
Val Leu Arg His Trp Leu Ala Arg Gly Pro Thr Cys Pro His Ile Phe						
				690		695
						700
Val Ala Thr Asn Phe Leu Ser Leu Val Gln Leu Gln Leu Leu Pro Gln						
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						715
						720
Gly Pro Leu Val Gln Tyr Leu Thr Met Glu Thr Cys Glu Asp Gly Asn						
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Asp Leu Val Phe Phe Tyr Gln Val Cys Glu Gly Val Ala Lys Ala Ser						
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						750
His Ala Ser His Thr Ala Ala Gln Ala Gly Leu Pro Asp Lys Leu Val						
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						765
Ala Arg Gly Lys Glu Val Ser Asp Leu Ile Arg Ser Gly Lys Pro Ile						
				770		775
						780
Lys Pro Val Lys Asp Leu Leu Lys Lys Asn Gln Met Glu Asn Cys Gln						
				785		790
						795
						800
Thr Leu Val Asp Lys Phe Met Lys Leu Asp Leu Glu Asp Pro Asn Leu						

805

810

815

Asp Leu Asn Val Phe Met Ser Gln Glu Val Leu Pro Ala Ala Thr Ser
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Ile Leu

<210> 30

<211> 2734

<212> DNA

<213> Homo sapiens

<220>

<223> coding region of hMSH5 cDNA from residue 102-2606

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cgccccagc gccgggcccc agggaggccg aggaggagga agtcgaggag gaggaggagc 240
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atactagtga ctccactatc cacttcatgc cagatgcccc agaccacgag agcctcaagc 360
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gacctgaaat catatttttg ccaagtgtgg atttttgtct ggagataagc aaacaacgcc 540
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<210> 31

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: hMSH5 Primers

<400> 31

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<210> 32

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hMSH5 Primers

<400> 32

tgacgtggca ttgttcact

19

<210> 33

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: hMSH4 Primers

<400> 33

ggaagggttg ggaggatgct gagg

24

<210> 34

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hMSH4 Primers

<400> 34

attgtgatta ttcttcagtc tt

22

<210> 35

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: hMSH4 Primers

<400> 35

atctcgagat gctgaggcct gag

23

<210> 36

<211> 26

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: hMSH4 Primers

<400> 36

gcgctagctt attcttcagt cttttc

26